Remarks

The Rejection of Claims 1-3, 6 and 10 Under 35 U.S.C. §102

The Office Action rejected Claims 1-3, 6 and 10 under 35 U.S.C. §102(b) as being anticipated by Rodriguez *et al.* (USPN 5,330,119).

A. The Structural Elements of Claim 1 which Provide Functional Advantages Over the Rodriguez Device

The key structural elements of the present invention are described in paragraph 30.

> In a preferred embodiment of the present invention, as shown in Figures 3 and 4, coil reel hold down device 10 includes base plate 19 arranged to be mounted to a shop floor and **snubber arm 28 pivotably attached to base plate 19** by snubber arm mounting assembly 42. **Snubber arm 28 generally comprises first section 28A and second section 28B disposed at an obtuse angle of about 120 degrees with respect to one another.** (It should be appreciated that other obtuse angles, other than approximately 120 degrees, would also be suitable.) In one embodiment, snubber wheel 30 is rotatably attached to end 43 of Snubber arm 28. Snubber wheel 30 is adapted to bear on the exterior of the coil reel under the urging of a constant pressure exerted by cylinder/piston 20 (in a preferred embodiment, a five inch pneumatic cylinder was used, although hydraulic cylinders and other length cylinders could also be used). In a preferred embodiment, the snubber wheel is operatively arranged to rotate and then apply approximately 600 psi to the coil to facilitate controlled unwinding without releasing tension.(emphasis added)

Figs. 8A and 8B and paragraph 34 describe the functional advantages arising from these structural elements of the present invention.

> Coil reel hold-down device 10 is **adapted to dispense different shaped coiled material from different sized coil reels** (i.e., different diameters), such as wire and flat stock, as well as different thicknesses of material, including small to large gauge wire, as well as thick and thin flat stock. Figure 8A is a perspective view of the coil reel hold down device of the invention depicting angle θ of snubber arm 28 with snubber wheel 30 pressed to "large diameter" unbounded coil reel 16 with a diameter of about 72". Figure 8B is a perspective view of the coil reel hold down device depicting angle θ of snubber arm 28 with snubber wheel pressed to "small diameter" unbounded reel 44 with a diameter of about 24". Figure 3 illustrates tilt angle θ of snubber arm 28 in the extreme up position. Figure 8B depicts tilt angle θ of snubber arm 28 in the extreme "small-diameter" hold-down position. In this embodiment, snubber arm 28 has a continuous tilt angle range of about 40 degrees measured from the extreme up position to the extreme down position.

Coils of varying size can be held down by the present invention **because of the obtuse angle in the two-piece snubber arm**. As shown in Figs. 8A and 8B, the presence of the obtuse angle results in the coil reel being held down **from the top**. Because the point of contact is at the top of the reel, small reels can be held down effectively. Furthermore, when a large diameter coil reel is fed continuously into a larger apparatus, the reel gradually decreases in diameter. Again, the fact that the reel is held down from the top means that there is no possibility of the snubber arm falling off the reel as it decreases in diameter.

B. Rodriguez Does Not Disclose a "Snubber Arm Including a First Section and a Second Section" as Required by Claim 1

Claim 1 specifically recites the element of a "snubber arm including a first section and a second section". Rodriguez does not disclose this element. Rodriguez describes a snubber mechanism in Figs. 1 and 9 and Col. 10, lines 1-17.

> FIGS. 1 and 9 illustrate a snubber mechanism 266, **mounted adjacent** the arbor 26 containing the coil 10'. The snubber mechanism 266 provides means for preventing the uncontrolled uncoiling of the coil **when in the feeding position**.
>
> The snubber 266 more specifically comprises a base frame 268 anchored to the surface 42, **a** bellcrank arm 270, a cylindrical pressure pad 272, and a linear actuator 274. The bellcrank arm 270 is pivotally mounted at a **point intermediate its ends** on a flange 276 extending upwardly from and forming a part of frame 268. The linear actuator 274 is operably mounted between an anchor point 278 on the frame 268 and the lower end of the arm 270. The pressure pad 272 is positioned with its longitudinal axis parallel to the axis of the arbor 26, and is adapted to engage the outer periphery of the coil 10 mounted on the arbor 26 in the feeding position. (emphasis added)

The Rodriguez device described above features a one-piece bellcrank arm 270. This one-piece construction makes it impossible to have an obtuse angle in the arm. The relatively short length of the one-piece bellcrank arm results in the snubber contacting the coil on the side (i.e. "mounted adjacent"). Since the coil is held down from the side rather than the top, as the coil decreases in size, the Rodriguez arm loses it functionality. Furthermore, if the coil reel has a small diameter, the short Rodriguez arm cannot hold it down. This lack of flexibility of the Rodriguez arm is emphasized by the requirement that the coil be in a specific feeding position for proper functioning. Therefore, Rodriguez does not anticipate Claim 1, or any of its trailing dependent

claims, under 35 U.S.C. §102.

C. Rodriguez Does Not Disclose a "First Section and a Second Section Disposed at an Obtuse Angle with Respect to One Another" as Required by Claim 1

Claim 1 specifically recites the element of a snubber arm with "a first section and a second section disposed at an **obtuse angle** with respect to one another." Rodriguez does not disclose this element. The arm in the present invention requires two pieces so as to provide an obtuse angle in the pivoting arm. As discussed above, having an obtuse angle in the two-piece arm is functionally advantageous as it regulates the arm and makes it adaptable for small and large diameter coils. Therefore, Rodriguez does not anticipate Claim 1, or any of its trailing dependent claims, under 35 U.S.C. §102.

D. Rodriguez Does Not Disclose "Effecting a Pivoting Movement of Said Snubber Arm Relative to said Base Plate" as Required by Claim 1

Claim 1 specifically recites the element of "effecting a pivoting movement of said snubber arm relative to said base plate." This pivoting arrangement, combined with the angled arm allows the present invention to contact a coil from the top, rather than the side. Rodriguez does not disclose this element. Instead "the bellcrank arm 270 is pivotally mounted at a **point intermediate its ends** on a flange 276." Thus, the pivot point for Rodriguez is far above the base and therefore less stable and less effective as a hold-down device. As such, it is unnecessarily complex and cannot be readily adapted for existing apparatus. Therefore, Rodriguez does not anticipate Claim 1, or any of its trailing dependent claims, under 35 U.S.C. §102.

The Rejection of Claims 4-5, 7-9, and 11-12 Under 35 U.S.C. §103

The Office Action rejected Claims 7-9, and 11-12 under 35 U.S.C. §103(a) as being unpatentable over Rodriguez *et al.* (USPN 5,330,119). As discussed above, claim 1, and its trailing dependent claims have numerous structural elements which are not taught by Rodriguez. Furthermore, Rodriguez teaches away from the present invention, requiring large diameter coils that must be placed in a fixed feeding position.

The Office Action also rejected Claims 4 and 5 as being unpatentable over Rodriguez *et al.* in view of Orii (USPN 4,589,605). Orii is non-analogous art which teaches an apparatus for looping coiled material comprising: an uncoiler mechanism for holding a coiled portion of the material and

for unwinding the coiled material by rotating the coiled portion of the material about a horizontal axis; and a loop guide mechanism disposed alongside said uncoiler mechanism for guiding the material unwound by the uncoiler mechanism helically from the coiled portion in a direction perpendicular to the direction of feed..." (See Claim 1). This device is targeted to actively **uncoiling** a reel which teaches away from the coil reel **hold down** device of the present invention. This uncoiler also lacks numerous structural elements of claim 1 such as two-piece arm with an obtuse angle pivoting relative to a base plate. Finally, there is not motivation, teaching or suggestion for one skilled in the art to combine the snubber mechanism teachings of Rodriguez with the Orii uncoiler to arrive at the present invention. Thus, neither Rodriguez alone or in combination with Orii arrives at all of the features of the present invention.

Conclusion

The foregoing is submitted as a full and complete Reply to Office Action. For all of the reasons set forth above, Applicant respectfully submits that the present application is now in condition for allowance, which action is courteously requested. The Examiner is invited to contact the undersigned agent of record if such contact will facilitate an efficient examination and allowance of the application.

Respectfully submitted,

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